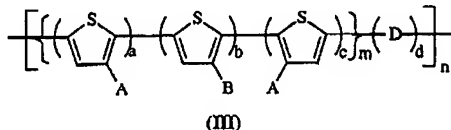


10/042,342 *Carney 16*

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AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A symmetrical polythiophene

wherein A is a side chain; B is hydrogen or a side chain; D is a divalent linkage; a and c represent the number of A-substituted thiophenes; b is the number of B-substituted thiophene segments; d is 0 or 1; and n represents the degree of polymerization, and wherein A is alkyl, and said B side chain is alkyl.

2. (Canceled)

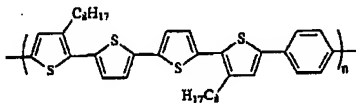
1, 5-6, 6-19, 22-26, Garman in view of Reed.

27-29 NAMU further in view of Sato et al T1069, 123

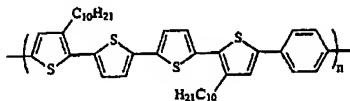
Claim 28 6/0/02, 3/02

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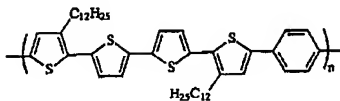
3. (Original) A polythiophene represented by



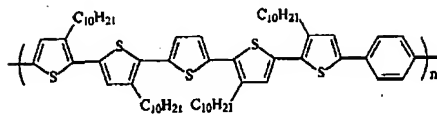
(1)



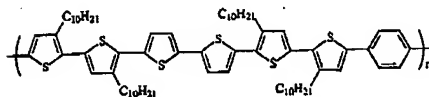
(2)



(3)

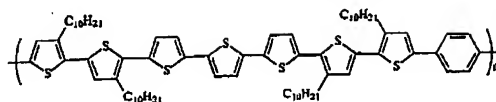


(4)

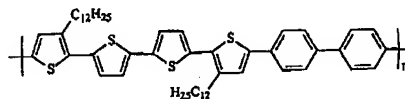


(5)

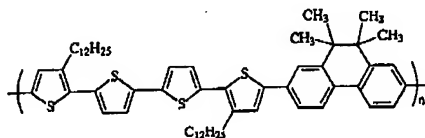
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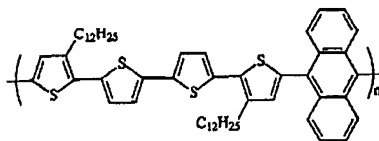
(6)



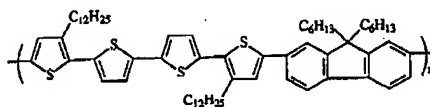
(7)



(8)



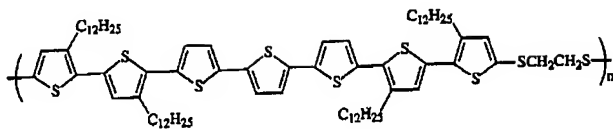
(9)



(10)

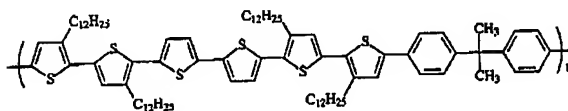
-5-

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(16)

or

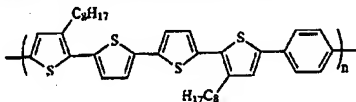


(17)

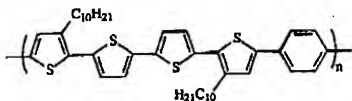
and wherein n represents the number of segments.

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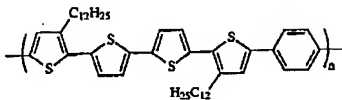
4. (Original) A polythiophene in accordance with claim 1 wherein said polythiophene is represented by the following formulas



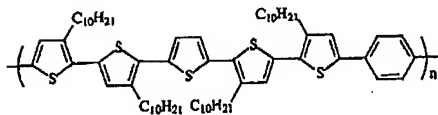
(1)



(2)



(3)



(4)

5. (Canceled)

6. (Original) A polythiophene in accordance with claim 1 wherein A is alkyl containing from about 1 to about 25 carbon atoms, and B is alkyl containing from 0 to about 4 carbon atoms.

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7. (Original) A polythiophene in accordance with claim 6 wherein A contains from about 5 to about 25 carbon atoms, and B contains from 0 to about 4 carbon atoms.

8. (Original) A polythiophene in accordance with claim 1 wherein a is from about 1 to about 7.

9. (Original) A polythiophene in accordance with claim 1 wherein b is from about 1 to about 7.

10. (Original) A polythiophene in accordance with claim 1 wherein d is zero.

11. (Original) A polythiophene in accordance with claim 1 wherein d is 1.

12. (Original) A polythiophene in accordance with claim 1 wherein n is from about 5 to about 5,000.

13. (Original) A polythiophene in accordance with claim 1 wherein n is from about 5 to about 3,000.

14. (Original) A polythiophene in accordance with claim 1 wherein n is from about 10 to about 1,000.

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15. (Original) A polythiophene in accordance with claim 1 wherein A is alkyl containing from about 6 to about 25 carbon atoms; B is hydrogen or alkyl containing from 1 to about 3 carbon atoms; D is arylene or dioxyarene, each containing from about 6 to about 40 carbon atoms, or alkylene or dioxyalkane, each containing from about 1 to about 20 carbon atoms.

16. (Original) A polythiophene in accordance with claim 1 wherein A is alkyl containing from about 8 to about 12 carbon atoms, and B is a hydrogen atom.

17. (Original) A polythiophene in accordance with claim 1 wherein A is alkyl containing from 5 to about 15 carbon atoms; B is a hydrogen atom; D is arylene; a, b, c, and m are independently selected from the numbers 1, 2, and 3; and d = 1.

18. (Original) A polythiophene in accordance with claim 1 wherein A is alkyl containing from about 8 to about 12 carbon atoms; B is a hydrogen atom; D is arylene; a = c = m = 1; b = 2; and d = 1.

19. (Original) A polythiophene in accordance with claim 1 wherein n is from about 5 to about 5,000.

20. (Original) A polythiophene in accordance with claim 1 wherein the number average molecular weight (M_n) of (III) is from about 10,000 to about 30,000, and the weight average molecular weight (M_w) is from about 15,000 to about 100,000.

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21. (Original) A polythiophene in accordance with claim 1 wherein the number average molecular weight (M_n) of (III) is from about 2,000 to about 100,000, and wherein the weight average molecular weight (M_w) is from about 4,000 to about 500,000, each as measured by gel permeation chromatography using polystyrene standards.

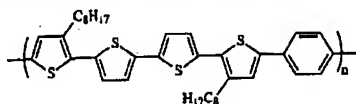
22. (Original) A polythiophene in accordance with claim 1 wherein A is hexyl heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, or pentyldecyl.

23. (Original) A polythiophene in accordance with claim 1 wherein D is an arylene selected from the group consisting of phenylene, tolylene, xylylene, biphenylene, substituted biphenylene, fluorenylene, phenanthrenylene, dihydrophenanthrenylene, dibenzofuranediyl, dibenzothiophenediyl, and carbazole-diyl.

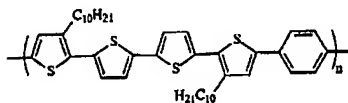
24. (Original) A polythiophene in accordance with claim 1 wherein D is saturated linkage selected from the group consisting of alkylene, dioxyalkane, dioxyarene, and oligoethylene oxide.

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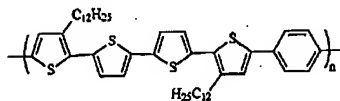
25. (Original) A polythiophene in accordance with claim 1 wherein said polythiophene is represented by or encompassed by the following formulas, and wherein n represents the number of repeating segments, and is a number of from about 5 to about 4,000



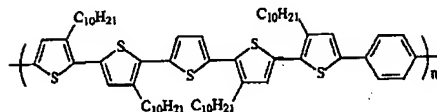
(1)



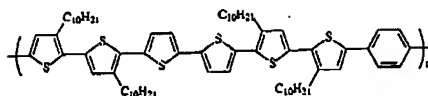
(2)



(3)



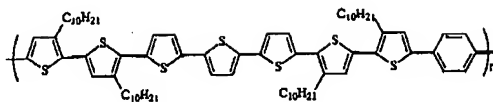
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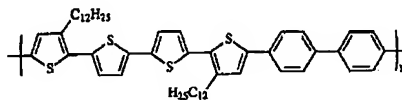
(5)

-12-

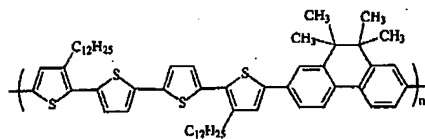
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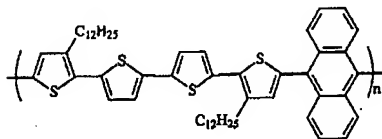
(6)



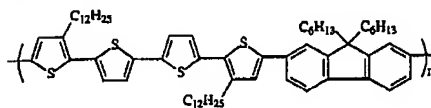
(7)



(8)



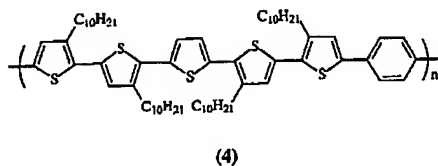
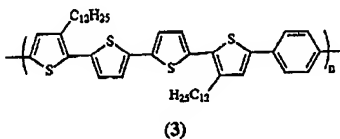
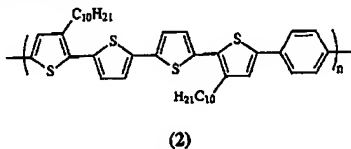
(9)



(10)

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26. (Original) A polythiophene in accordance with claim 1 wherein said polythiophene is



27. (Canceled)

28. (Canceled)